

IN THE CLAIMS:

Please cancel Claims 1-37 without prejudice to or disclaimer of the recited subject matter.

Please amend Claims 38-41 and add new Claims 42-73 as follows.

1.-37. (Cancelled)

38. (Currently Amended) ~~An image processing apparatus comprising:~~

An apparatus for generating additional data which is used for checking whether a digital image encoded by a predetermined encoding format is changed or not, the apparatus comprising:

131 a calculation unit adapted to perform ~~means for performing~~ a predetermined calculation using the ~~the~~ [[a]] digital image and confidential information; and

a generating unit coupled to said calculation unit and adapted to generate the additional data using a result of the predetermined calculation. ~~generation means for generating signature data, using an output of the calculation means, for use in determining whether the digital image has been modified.~~

39. (Currently Amended) ~~An image processing apparatus comprising:~~

An apparatus for checking whether a digital image encoded by a predetermined encoding format is changed or not, the apparatus comprising:

~~input means for inputting a digital image and signature data used for determining whether the digital image has been modified;~~

an inputting unit adapted to input the digital image and first additional data used for checking whether the digital image is changed or not;

a calculation unit adapted to perform means for performing a predetermined calculation using with the use of the digital image and confidential information; and

detecting means for determining with the use of the signature data and an output of said calculation means whether the digital image has been modified

a generating unit coupled to said calculation unit and adapted to generate second additional data using a result of the predetermined calculation,

wherein said apparatus is adapted to check whether the digital image is changed or not using the first additional data and the second additional data.

40. (Currently Amended) ~~An image processing method comprising the steps of:~~

A method of generating additional data which is used for checking whether a digital image encoded by a predetermined encoding format is changed or not, the method comprising steps of:

a calculation step of performing a predetermined calculation using the [[a]] digital image and confidential information; and

generating signature data, using a result of the predetermined calculation, for use in determining whether the digital image has been modified

a generating step of generating the additional data using a result of the predetermined calculation.

41. (Currently Amended) ~~An image processing method comprising the steps of:~~

A method of checking whether a digital image encoded by a predetermined encoding format is changed or not, the method comprising the steps of:

~~inputting a digital image and signature data used for determining whether the digital image has been modified;~~

an inputting step of inputting the digital image and first additional data used for checking whether the digital image is changed or not;

a calculation step of performing a predetermined calculation with the use of using the digital image and confidential information; and

~~determining according to the signature data and a result of the predetermined calculation whether the digital image has been modified~~

a generating step of generating second additional data using a result of the predetermined calculation; and

a checking step of checking whether the digital image is changed or not using the first additional data and the second additional data.

42. (Currently Amended) ~~An image processing method comprising the steps of:~~

~~performing a predetermined calculation using a digital image and confidential information;~~

~~generating signature data, using a result of the predetermined calculation, for use in determining whether the digital image has been modified;~~

~~externally outputting the digital image and the signature data;~~
~~externally inputting the digital image and the signature data;~~
~~performing a second predetermined calculation using the digital image and the~~
~~confidential information; and~~

~~determining whether the digital image has been modified, using the signature~~
~~data and a result of the second predetermined calculation~~

An apparatus according to claim 38, wherein the additional data is also used
for checking integrity of the digital image.

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43. (New) An apparatus according to claim 38, wherein the generating unit is
adapted to use a one-way function to generate the additional data.

44. (New) An apparatus according to claim 38, wherein the generating unit is
adapted to use a secret key cryptosystem to generate the additional data.

45. (New) An apparatus according to claim 38, wherein the confidential
information is information unique to the apparatus.

46. (New) An apparatus according to claim 38, wherein the confidential
information is information unique to an external apparatus connected to the apparatus.

47. (New) An apparatus according to claim 38, wherein the confidential information includes first information unique to the apparatus, and second information unique to an external apparatus connected to the apparatus.

48. (New) An apparatus according to claim 38, wherein the apparatus is a digital camera or an apparatus including a digital camera.

49. (New) An apparatus according to claim 38, wherein the apparatus is a scanner.

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50. (New) An apparatus according to claim 39, wherein the first and second additional data is also used for checking integrity of the digital image.

51. (New) An apparatus according to claim 39, wherein the generating unit is adapted to use a one-way function to generate the second additional data.

52. (New) An apparatus according to claim 39, wherein the generating unit is adapted to use a secret key cryptosystem to generate the second additional data.

53. (New) An apparatus according to claim 39, wherein the confidential information is information unique to an apparatus which generates the first additional information.

54. (New) An apparatus according to claim 39, wherein the confidential information is information unique to an external apparatus connected to an apparatus which generates the first additional information.

55. (New) An apparatus according to claim 39, wherein the confidential information includes first information unique to an apparatus which generates the first additional information, and second information unique to an external apparatus connected to that apparatus.

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56. (New) An apparatus according to claim 39, wherein the inputting unit is adapted to input a digital image and additional data generated in a digital camera or an apparatus including a digital camera.

57. (New) An apparatus according to claim 39, wherein the inputting unit is adapted to input a digital image and additional data generated in a scanner.

58. (New) A method according to claim 40, wherein the additional data is also used for checking integrity of the digital image.

59. (New) A method according to claim 40, wherein the generating step is adapted to use a one-way function to generate the additional data.

60. (New) A method according to claim 40, wherein the generating step is adapted to use a secret key cryptosystem to generate the additional data.

61. (New) A method according to claim 40, wherein the confidential information is information unique to an apparatus using the method.

62. (New) A method according to claim 40, wherein the confidential information is information unique to an external apparatus connected to an apparatus using the method.

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63. (New) A method according to claim 40, wherein the confidential information includes first information unique to an apparatus using the method, and second information unique to an external apparatus connected to that apparatus.

64. (New) A method according to claim 40, wherein the method is used in a digital camera or an apparatus including a digital camera.

65. (New) A method according to claim 40, wherein the apparatus is used in a scanner.

66. (New) A method according to claim 41, wherein the first and second additional data is also used for checking integrity of the digital image.

67. (New) A method according to claim 41, wherein the generating step is adapted to use a one-way function to generate the second additional data.

68. (New) A method according to claim 41, wherein the generating step is adapted to use a secret key cryptosystem to generate the second additional data.

69. (New) A method according to claim 41, wherein the confidential information is information unique to an apparatus which generates the first additional information.

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70. (New) A method according to claim 41, wherein the confidential information is information unique to an external apparatus connected to an apparatus which generates the first additional information.

71. (New) A method according to claim 41, wherein the confidential information includes first information unique to an apparatus which generates the first additional information, and second information unique to an external apparatus connected to that apparatus.

72. (New) A method according to claim 41, wherein the inputting step is adapted to input a digital image and additional data generated in a digital camera or an apparatus including a digital camera.

73. (New) A method according to claim 41, wherein the inputting step is adapted to input a digital image and additional data generated in a scanner.

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